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II. Title: Performance Oriented Packaging (POP) testing of Charge, Propelling,
155 MM, M4A2, Packed One per M13A2 Round Rim Metal Ammunition
Container

Drawing Number: 7548187

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Performing Activity: U.S. Army Armament Research, Development
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		4. Packaging	
19 ABSTRACT (Continue on reverse if necessary and identify by block number) This Performance Oriented Packaging (POP) report is for the Propelling Charge, 155MM, M4A2, packed one per M13A2 Round Rim Metal Ammunition Container in accordance with drawing 7548187. This report describes the results of testing conducted on a similar packaging which is used as an analogy for this item.			
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22a NAME OF RESPONSIBLE INDIVIDUAL STEVE RUFFINI <i>Steve Ruffini</i>		22b TELEPHONE (Include Area Code) 201-724-2515	22c OFFICE SYMBOL SMCAR-AEP

1. DATA SHEET:

a. CONTAINER

Type: Removable head steel drum

UN Code: 1A2

Part Number: 8880527

Spec Number: MIL-C-2440

Material: Steel

Capacity: 11.4 liters

Dimensions :

Inside Diameter = 6 9/64 in. min.

Outside Diameter = 7 25/32 in. max.

Inside length = 23 1/2 in. min.

Outside Length = 27 1/2 in. max.

Closure (Method/Type) : Central plug which torques three spider arms into their respective bayonet slots

Tare Weight: 6.9 kg (15.3 lbs)

b. PRODUCT

Name: Charge, Propelling, 155 MM, M4A2, for HOW M1, M1A1, M45, M126

United Nations Proper Shipping Name: Charges, Propelling, for Cannon

United Nations Number: 0242

NSN: 1320-00-9351923

Drawing Number: 9207624

Physical State: Solid

United Nations Packing Group: II

Amount Per Container: 1

2. BACKGROUND, TESTS, AND RESULTS:

The Department of Transportation (DOT) per Code of Federal Regulations (CFR), Title 49, Parts 100-180, dated 1 Oct 92, requires that Hazardous Materials should be packed in a container that passes the Performance Oriented Packaging (POP) tests.

The M13A2 Round Rim Metal Container reference 1a, is used as the shipping container for the Propelling Charge, 155 MM, M4A2 packed in accordance with drawing 7548187.

Reference the following documents:

- a. Code of Federal Regulations, Title 49, Dated Oct. 1 1992.
- b. POP Report DOD POP HMTR/AYD 92-017

Instead of testing the specific container used for the Propelling Charge, 155 MM, M4A2 in accordance with drawing 7548187, the metal container is certified to meet the requirements of the Code of Federal Regulations (CFR), Title 49, based on a previously tested metal container which has the following weight and dimensions:

Gross Weight: 42 lbs (19 kg)

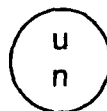
Dimensions:

Inside Diameter = 6 13/16 in. min.
 Outside Diameter = 8 13/32 in. max.
 Inside length = 28 3/4 in. min.
 Outside Length = 32 3/4 in. max.

Stacking Test, Loose Cargo Test and Four Foot Drops were conducted in accordance with Reference 2b. The results indicated no leakage or spillage of contents from the metal container following any of the tests, thus satisfying the requirements of the 49 CFR. This falls within the guidelines for analogy IAW Variation III of Para. 178.601(g)(3) of Reference 2a.

3. CONCLUSION:

Based upon the above POP testing, the following POP symbol has been applied to the metal container in accordance with drawing 7548187.



1A2/Y15/S/**
 USA/DOD/AYD

** Last two digits of year packed.

DTIC QUALITY INSPECTED 2

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